

Registered Nurses' Self-leadership Strategies: Instrument Validation and a Cross-sectional Study

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Objective: To validate the Revised Self-Leadership Questionnaire and describe nurses' self-leadership.

Background: Self-leadership is a vaguely defined concept in nursing. Through better understanding of self-leadership strategies, these dimensions can be strengthened.

Methods: A cross-sectional design was conducted. A total of 230 registered nurses participated in the study. Principal component analysis and descriptive analysis were used.

Results: The validated tool has 7 components containing 31 items. The nurses assessed themselves as having moderate levels of self-leadership, with the components of natural reward strategies and self-reward as the highest and lowest scores, respectively. Job satisfaction, education, and experience were related to some of the components.

Conclusions: The Revised Self-Leadership Questionnaire is a reliable measure to use in nursing. The use of natural reward strategies at work is a resource with which to enjoy one's daily tasks, as well as a mindset that leaders should support. In the future, self-leadership training is needed.

Challenges for the healthcare workforce have been identified globally due to retirement, fatigue caused by the COVID pandemic, and unattractive working conditions. The need to promote these workers' well-being has been highlighted.¹ Self-directed individuals take responsibility for their own motivation and well-being by using self-influence methods.² In addition, they usually find more meaning and joy in their work and have a stronger commitment to their employers than others.³

In striving for high-quality nursing care, the importance of a strong commitment of nurses in models of professional governance has been recognized.^{4,5} This commitment requires empowering nurses to have autonomy and self-leadership.⁶ Self-leadership is a vaguely defined concept in nursing, although it is an expectation for nursing professionals.⁷ Through better understanding of self-leadership strategies,³ nurses' self-leadership skills can be strengthened.

Background

When encouraging employees in an organization to take more responsibility for their own work, it is important to consider their ability to lead themselves.⁸ Self-leadership is not the same as formal leadership or clinical leadership, where the object of leadership is other people and their actions.⁹ Instead, self-leadership is about taking responsibility and control over an individual's own goals and actions. Moreover, self-leadership is thought of as an internal process within an individual, the purpose of which is to increase a sense of independence and internal motivation.¹⁰ Self-leadership can be viewed through the 3 strategies. Behavioral strategies (self-observation, self-goal setting, self-reward, self-criticism, and self-cueing) are essential for encouraging positive and desirable behaviors that lead to successful outcomes. Natural reward strategies are intended to enhance motivation and enjoyment by making tasks inherently rewarding to foster feelings of competence and self-determination. Constructive thinking strategies are essential for enhancing performance because they foster positive thinking through identifying and replacing dysfunctional beliefs and assumptions with more constructive thought processes, as well as replacing negative self-talk with positive internal dialogues.^{8,11}

A previous scoping review has highlighted that nurses' self-leadership improves their work performance and supports their well-being at work.⁹ Self-led nurses enhance their nursing practices by being more aware of themselves and their environment,⁷ having better self-control, and proactively directing their behaviors for the benefit of patients.¹² Self-led nurses more often tolerate stress and solve problems.¹³ Behavioral strategies appear as nurses' self-

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awareness of their own strengths and weaknesses. Natural reward strategies help nurses focus on work areas that promote competence, further increasing their motivation and well-being. Constructive thinking strategies manifest as nurses' dedication to developing themselves.¹⁴

Nurses' self-leadership, however, might be more often desired than achieved,⁷ and it thrives primarily only in favorable work environments.⁹ Due to the vagueness of the definition of self-leadership in nursing, it is important to study it with a tool that includes its key dimensions.¹⁵ Although the Revised Self-Leadership Questionnaire (RSLQ) has been found culturally sufficient,¹⁶ these researchers thought it was necessary to validate it because the tool was developed 2 decades ago for a context other than diverse nursing practice environments. Thus, the aim of this study is to validate the Revised Self-Leadership Questionnaire (RSLQ) and describe nurses' self-leadership strategies.

Methods

A cross-sectional design and instrument validation were used. All registered nurses (RNs) from 1 central hospital and several healthcare centers in 1 Wellbeing Services County in Finland were invited to participate in the study. The power analysis, which included a predefined 80% confidence level and a 5% margin of error, yielded a recommended sample size of 154 participants.¹⁷ A total of 230 RNs participated in the study. The data were collected in October 2024 and November 2024.

Measures

Nurses were administered an electronic survey consisting of the RSLQ¹⁵ and 4 questions regarding demographic variables: age, sex, education, and nursing experience. In addition, the RNs were asked to assess their current job satisfaction on a 0 to 10 scale and their intention to leave the profession on a 5-point Likert Scale (1: daily; 2: weekly; 3: monthly; 4: sometimes; 5: never).¹⁸

The RSLQ is a self-administered tool that includes 35 items that measure self-leadership through 3 dimensions that align with self-leadership strategies (behavioral-focused strategies, natural rewards, and constructive thought strategies). It includes 9 factors: self-goal setting, self-reward, self-punishment, self-observation, self-cueing, natural reward strategies, visualizing successful performance, self-talk, and evaluating beliefs and assumptions. The items are assessed on a 5-point Likert Scale (from 1 = not at all accurate to 5 = completely accurate). A higher score reflects greater self-leadership.¹⁵

Content-validation Process

The RSLQ was translated from English to Finnish, back-translated, and discussed in an expert panel. The experts determined the content validity of the items, assessing each on a 4-point Likert Scale (1: not relevant; 2: somewhat relevant; 3: very relevant; 4: extremely relevant). To calculate the content validity index (I-CVI), ratings of 3 and 4 were considered and recoded as 1, computed, and divided by

the number of experts ($n = 8$). An $I-CVI \geq 0.78$ signified that an item's content validity was excellent, whereas an $I-CVI < 0.78$ required more joint discussion. An $I-CVI \leq 0.50$ led to the rejection of the item.¹⁹

Data Analysis

Descriptive statistical analysis was used to describe the nurses' demographic data, job satisfaction, and intention to leave the profession. Principal component analysis (PCA) with the Promax method was used to identify the structure of the RSLQ. Missing single values ($n = 25$) were replaced with means.²⁰ Mean scores were calculated for each component, and their consistency reliability was determined using Cronbach alpha values.¹⁹

Five categorical variables (age, sex, education, nursing experience, and intention to leave) and 1 continuous variable (job satisfaction) were inserted into a general linear model to explore the associations between them and the RSLQ components. A stepwise backward regression approach followed.²⁰ SPSS Statistics 29 for Windows (SPSS Inc.) was used for analysis, and the threshold for statistical significance was $P < 0.05$.

Ethical Considerations

Ethical approval was obtained from the Committee on Research Ethics at the University of Eastern Finland and study permission from Wellbeing Services County in September 2024 and October 2024, respectively. The research was carried out in accordance with the Declaration of Helsinki.²¹ Participants' information and rights and the voluntary nature of their participation were emphasized, and their data protection was assured according to EU legislation.^{22,23} Permission to use the RSLQ was obtained from Professor Houghton in August 2023.

Results

A total of 230 RNs participated in the study. Most were women (93%), with a mean age of 44.2 years (SD: 10.7), a bachelor's degree from a university of applied sciences (63.1%), and 16.1 years' nursing experience (SD: 10.4). On a scale of 1 to 10, RNs assessed their job satisfaction as 7.3 (SD: 1.7). Intention to leave the profession was reported as follows: daily (6.1%), weekly (11.3%), monthly (18.3%), sometimes (47.8%), and never (16.5%).

Content Validity and Principal Component Analysis

After the RSLQ forward-translation and back-translation phase, some minor modifications were made while respecting the original RSLQ. The I-CVI assessment was conducted on all 35 items. Thirty-one items demonstrated excellent content validity, whereas 2 items with an I-CVI of 0.75 required revision, and 2 items with an I-CVI of 0.50 were rejected directly. As a result of joint discussion, 1 of the items under revision was accepted for inclusion. Ultimately, the tool comprised 32 items, all with I-CVI values of 0.88 to 1.00. The entire scale validity achieved a value of 0.96.

PCA was conducted on the RSLQ with 32 items; 1 variable, however, did not correlate ($r > 0.30$) with any of the

other variables; thus, it was omitted from the data. Hence, the PCA with 31 variables produced a model of 7 components with appropriate indicators: KMO of 0.90, a statistically significant Bartlett test of sphericity ($P < 0.001$), correlation coefficients > 0.3 , and eigenvalues > 1 (1.02 to 10.44), explaining 66.80% of the total variance (3.28 to 33.67). The cutoff point for the rotated component loadings was set to 0.30, and all 31 items loaded clearly, but 3 items cross-loaded (0.31 to 0.39). All items were appropriate content-wise for the components for which they loaded highest, so they were included in them.²⁰ The components were named according to the original RSLQ as follows: visualizing successful performance (6 items), self-punishment and self-correcting feedback (5 items), self-goal setting (6 items), self-reward (3 items), evaluating beliefs and assumptions (4 items), natural reward strategies (4 items), and self-cueing (3 items). The Cronbach α value of 0.93 for the 31-item RSLQ indicated strong reliability. Table 1 shows the items, component loadings, and the Cronbach α values.

Registered Nurses' Evaluation of Their Self-leadership

The mean scores for components of self-leadership were: 2.65 for visualizing successful performance (SD: 0.94); 3.18 for self-punishment and self-correcting feedback (SD: 0.89), 3.33 for self-goal setting (SD: 0.75), 2.47 for self-reward (SD: 0.76), 3.39 for evaluating beliefs and assumptions (SD: 0.71), 3.56 for natural reward strategies (SD: 0.76), and 2.81 for self-cueing (SD: 0.95; Table 1).

Background Variables Explaining Registered Nurses' Self-leadership

Based on the multiple linear regression models, no background variables were statistically significantly related to visualizing successful performance, self-punishment and self-correcting feedback, self-goal setting, or self-reward. Instead, job satisfaction was positively related to natural reward strategies ($B: 0.089, P < 0.05$); education and nursing experience were related to evaluating beliefs and assumptions ($P < 0.05$); and education was also related to self-cueing ($P < 0.05$). Table 2 presents the relationships in more detail.

Discussion

The RSLQ considers the dimensions of self-leadership in a broad sense and is a valid tool in general, but less used in nursing. The suitability of the RSLQ for different cultural contexts has been studied previously,^{16,24,25} and some changes in its factor structure have also been presented with those samples. In addition, the original 35-item RSLQ is considered a bit long.¹⁵ In this study, 3 items were rejected by an expert panel due to overlapping or irrelevance to nursing context. One item was rejected due to the low correlation in PCA.

PCA yielded 7 components. Unlike the original RSLQ, the components of self-observation and self-talk were left out of this version. Items regarding these were either omitted ($n = 2$) or included in other components ($n = 4$). Still, 25 of the 31 items were included in the same components as the RSLQ

and named the same way. Researchers have previously debated the component of self-punishment because it has included items focused on self-criticism, which can also be considered harmful.¹⁶ The component was named in this study as self-punishment and self-correcting feedback because the items it contains are not focused exclusively on self-criticism. Researchers agree, however, that the component does not align with other self-leadership components, and therefore, it was decided to view each component separately; thus, this study does not present a total score for nurses' self-leadership.

The RNs assessed only 4 components as scoring higher than 3, and overall, the scores were lower than those of nurse managers,²⁶ nursing students,²⁷ or professionals from other fields¹⁶ in previous studies. Natural reward strategies are the strongest component supporting RNs' ability to cope with their demanding work. A similar result has been reported among nurse managers.²⁶ Finding rewarding aspects of work reflects one's intrinsic motivation and self-determination,¹⁰ which is beneficial because work always includes routine tasks.¹¹ Moreover, RNs must follow professional rights, obligations, and organizational instructions; thus, their actions are not always autonomously chosen. In contrast, protocols can support RNs in acting confidently.¹⁴ In any case, it is important that RNs do not focus their energy and get fixated on issues that burden them. When RNs actively seek out the aspects of work they enjoy and surround themselves with people who bring out their own desirable behaviors, work can be a positive resource for them.

The RNs assessed the self-punishment and self-correcting feedback component as higher than 3 on their self-assessment. They may be too harsh on themselves when monitoring their own performance. Critical self-evaluation can be detrimental if one does not receive external feedback.¹⁶ Professionals who are not in formal leadership position practice more self-critical behavior.²⁸ Therefore, it is important that RNs receive feedback from their superiors. Nurse managers play a key role in creating a positive and rewarding environment where everyone's work is genuinely valued and perceived as rewarding.²⁹ Moreover, self-punishment has been found to have strong associations with workaholicism. Workaholics have a great need to prove themselves, expand job crafting, and seek approval from their superiors.³⁰ Nurse managers can enhance nurses' self-leadership by fostering an environment of empowerment, trust, and professional growth by adapting relational leadership styles.³¹ They can promote reflective practices that allow nurses to evaluate their strengths and areas for improvement.³² In a supportive and collaborative culture, nurses feel valued and respected,³¹ which encourages them to take ownership of their roles.

Self-reward was assessed as the weakest component of self-leadership, which again aligns with the findings of nurse managers.²⁶ Nursing has a historical echo as a humble profession, and it is not typical for RNs to promote themselves and their achievements. Rewarding oneself can be an unfamiliar experience for them. Self-reward, however, is an important part of self-leadership and increases desirable behavior.³³ Several studies have found that self-leadership strategies can be developed through training.^{12,34}

Table 1**Components, Scores, and Cronbach α of the Revised Self-leadership Questionnaire (n = 230)**

Components and Items	Loading*	Mean Score [†] (SD)	Cronbach Alpha
Visualizing successful performance	—	2.65 (0.94)	0.89
I purposefully visualize myself overcoming the challenges I face	0.915	—	—
I use my imagination to picture myself performing well on important tasks	0.910	—	—
I visualize myself successfully performing a task before I do it	0.886	—	—
I often mentally rehearse the way I plan to deal with a challenge before I actually face the challenge	0.880	—	—
Sometimes I picture in my mind a successful performance before I actually do a task	0.863	—	—
Sometimes I talk to myself (out loud or in my head) to work through difficult situations	0.377	—	—
Self-punishment and self-correcting feedback	—	3.18 (0.89)	0.86
I feel guilt when I perform a task poorly	0.923	—	—
I tend to be tough on myself in my thinking when I have not done well on a task	0.918	—	—
I tend to get down on myself in my mind when I have performed poorly	0.901	—	—
I sometimes openly express displeasure with myself when I have not done well	0.748	—	—
I pay attention to how well I'm doing in my work	0.393	—	—
Self-goal setting	—	3.33 (0.75)	0.85
I consciously have goals in mind for my work efforts	0.805	—	—
I work toward specific goals I have set for myself	0.738	—	—
I establish specific goals for my own performance	0.672	—	—
I make a point to keep track of how well I'm doing at work	0.605	—	—
I think about the goals that I intend to achieve in the future	0.508	—	—
I keep track of my progress on projects I'm working on	0.435	—	—
Self-reward	—	2.47 (0.76)	0.94
When I have successfully completed a task, I often reward myself with something I like	0.970	—	—
When I do an assignment especially well, I like to treat myself to something or activity I especially enjoy	0.953	—	—
When I do something well, I reward myself with a special event such as a good dinner, movie, shopping trip, etc	0.943	—	—
Evaluating beliefs and assumptions	—	3.39 (0.71)	0.75
I openly articulate and evaluate my own assumptions when I have a disagreement with someone else	0.949	—	—
I find my own favorite ways to get things done	0.699	—	—
I think about and evaluate the beliefs and assumptions I hold	0.661	—	—
I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with	0.593	—	—
Natural reward strategies	—	3.56 (0.76)	0.72
I focus my thinking on the pleasant rather than the unpleasant aspects of my job activities	0.901	—	—
When I have a choice, I try to do my work in ways that I enjoy rather than just trying to get it over with	0.745	—	—
I try to surround myself with objects and people that bring out my desirable behaviors	0.527	—	—
I seek out activities in my work that I enjoy doing	0.504	—	—
Self-cueing	—	2.81 (0.95)	0.72
I use written notes to remind myself of what I need to accomplish	0.883	—	—
I write specific goals for my own performance	0.744	—	—
I use concrete reminders (eg, notes and lists) to help me focus on things I need to accomplish	0.562	—	—
Total self-leadership (31 items)	—	3.05 (0.62)	0.93

*Principal component analysis, Promax with Kaiser Normalization, explained 66.8% of the total variance.[†]Scale: 1 = lowest, 5 = highest.

In this study, age, sex, and intention to leave the profession had no statistically significant relationship with any component. Education, nursing experience, and job satisfaction, however, did have a relationship with 3 components. Higher education and achievements were also found to have a positive connection to nurses' self-leadership in previous studies,⁹ and job satisfaction has been reported to have a relationship with self-leadership in both healthcare^{7,35} and other fields.¹¹ There is, however, little information about component-level connections in previous studies, and these should be investigated further in the future.

Limitations

A relatively small number of RNs responded to the survey, and this may have contributed to sample bias. The RNs in this study worked in different nursing practice environments in Finland, but these researchers did not consider this background

information as an explanatory variable. The concept of self-leadership is vague in nursing and may involve personal interpretation; there is also always an interpretation bias in self-assessment measures that should be considered in the results. In addition, the tool used in this study contains 4 fewer items than the original RSLQ; thus, the results cannot be directly compared with those of previous studies.

Conclusions

The RSLQ is a reliable measure that provides comprehensive information about RNs' self-leadership strategies in various nursing environments. Of the available dimensions, RNs use natural reward strategies most; this dimension provides them with a huge resource with which to work through their internal motives and enjoy their daily tasks. RNs lead

Table 2
Statistically Significant Associations Between Demographic Variables and Components of Self-leadership, According to the General Linear Model Results

Component	B	SE	t	Sig.	95% CI Lower	Upper
Evaluating beliefs and assumptions						
Highest nursing degree						
Registered nurse (RN)	−0.608	0.231	−2.635	0.009	−1.063	−0.153
RN with specialization	−0.556	0.232	−2.399	0.017	−1.014	−0.099
University of Applied Sciences	−0.307	0.156	−1.972	0.050	−0.614	0.000
Master's degree	Ref.	—	—	—	—	—
Nursing experience (y)						
< 5	−0.430	0.211	−2.041	0.043	−0.846	−0.014
5-10	−0.213	0.188	−1.135	0.258	−0.583	0.157
11-20	0.116	0.168	0.691	0.490	−0.215	0.447
≥ 21	Ref.	—	—	—	—	—
Natural reward strategies						
Job satisfaction	0.089	0.038	2.340	0.020	0.014	0.164
Self-cueing						
Highest nursing degree						
Registered nurse (RN)	−0.589	0.293	−2.008	0.046	−1.169	−0.010
RN with specialization	−0.723	0.295	−2.452	0.015	−1.305	−0.141
University of Applied Sciences	−0.487	0.198	−2.462	0.015	−0.878	−0.097
Master's degree	Ref.	—	—	—	—	—

Ref. indicates reference.

themselves toward aspects of work that are meaningful and satisfying to them; and thus, experience the outcomes of their work as rewarding. This is a mindset that nursing leaders should support and strengthen. By providing positive feedback, leaders can reduce RNs’ potentially harsh self-criticism. In addition, it is important to emphasize and promote self-rewarding, which is essential to job well-being. In an inclusive nursing culture, it can be highlighted more. Because the background variables have only a minor relationship with self-leadership, this quality should be promoted through training. In the future, it is important to offer self-leadership training to RNs to ensure that nurses remain in their work and provide high-quality nursing care.

Conflicts of Interest

The authors declare no conflict of interest.

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